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## ABSTRACT:

The invention relates to a method of reproducing a gray scale image (1) in colors on a color monitor (6), in which method each shade of gray (2) is assigned, using a look-up table (4, 5), a given output value (R, G, B) for driving the electron guns (8R, 8G, 8B) of the color monitor. Assignment is performed in such a manner that a given color deviation is imparted to successive shades of gray, which deviation enables differentiation of the shades of gray by a human observer without such deviations becoming disturbing.

Consequently, the information concerning the optical density of the original gray scale image (1) is preserved; this is important notably for the interpretation of medical images.

Additionally, the special display properties of the monitor (6) and/or the ambient circumstances can be taken into account in the look-up table (4, 5) in order to optimize the reproduction of the gray scale image.

Fig. 1